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PATENT
Customer No. 22,852
Attorney Docket No. **02356.0086**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
Pierre DRUILHE et al.	)	Group Art Unit: 1645
	)	
Application No.: 10/712,533	)	Examiner: Nita M. Minnifield
	)	
Filed: November 14, 2003	)	
	)	
For: PLASMODIUM FALCIPARUM ANTIGENS AND THEIR VACCINE AND DIAGNOSTIC APPLICATIONS	)	Confirmation No.: 5870

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

AUTHORIZATION TO ACT IN A REPRESENTATIVE CAPACITY

The practitioner named below is authorized to conduct interviews and has the authority to bind the principal concerned. Furthermore, the practitioner is authorized to file correspondence in the above-identified application pursuant to 37 C.F.R. § 1.34.

Name	Registration No.
Mary B. Rucker	56,992

This is not a Power of Attorney to the above-named practitioner.

Accordingly, the practitioner named above does not have authority to sign a request to change the correspondence address, a request for an express abandonment, a

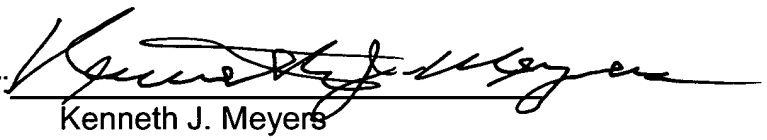
disclaimer, a power of attorney, or other document requiring the signature of the applicant, assignee of the entire interest or an attorney of record.

The above-identified application is currently associated with FINNEGAN, HENDERSON, FARABOW, GARRETT, & DUNNER, L.L.P., Customer No. 22,852, with respect to correspondence address and Power of Attorney.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: November 29, 2005

By: 
Kenneth J. Meyers
Reg. No. 25,146

Printer Friendly

10/712,533 Plasmodium falciparum antigens and their vaccine and diagnostic applications

Application Data

Application Number:	10/712,533	Customer Number:	-
Filing or 371 (c) Date:	11-14-2003	Status:	Docketed New Case - Ready for Examination
Application Type:	Utility	Status Date:	12-21-2004
Examiner Name:	MINNIFIELD, NITA M	Location:	ELECTRONIC
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Class / Subclass:	536/023.100	Patent Number:	-
First Named Inventor:	Pierre Druilhe , Paris, (FR)	Issue Date of Patent:	-
Title of Invention:	Plasmodium falciparum antigens and their vaccine and diagnostic applications		

Close Window

GUTMANN-PLASSERAUD(PASTEUR)

Case Number: 02356-0086.00000 **Client Ref:** B5257AAB-AD/LSF

Title: Plasmodium Falciparum Antigens and Vaccine and Diagnostic Applications

Application No.: 10/712,533 **File Date:** 11/14/03

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Status: Pending **Look Up Appl. Text at PTO** **Expiration Date:**

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Assignee: INSTITUTE PASTEUR **Last Updated:** 09/27/05

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Patent Term Adj.: 0 days

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Due Date	Action Due	PTO Mail Date	Response Date	Date Taken	Atty	Action Remarks
02/14/06	Appln status	11/14/03			KJM, MR1	Appln filed 11/14/03 -make status inquiry
01/14/05	File prel amend	11/14/04			KJM, MR1	File Preliminary Amendment by 1/14/05 Per USD e-mail 11/17/04

PLASMODIUM FALCIPARUM ANTIGENS AND THEIR VACCINE AND DIAGNOSTIC APPLICATIONS

CONTEXT OF THE INVENTION

a) Field of the invention

The present invention relates to novel *Plasmodium falciparum* antigens and to their vaccine and diagnostic applications. More particularly, the present invention relates to polypeptide molecules and immunogenic polynucleotide, to compositions comprising them, and to methods for diagnosis of and vaccination against malaria.

b) Brief description of the prior art

Malaria is a disease caused by infection of protozoic parasites belonging to apicomplexes of the species *Plasmodium* and transmitted by female mosquitoes of the genus *Anopheles*. Despite the fact that since 1998, the WHO has classified malaria as one of the three infectious diseases of major interest to world health, alongside tuberculosis and AIDS, there is still no effective vaccine against this disease.

Previous studies have determined antigenic polypeptides for the pre-erythrocytic stage of the disease, in particular SALSA (Sporozoite Liver Stage Antigen) polypeptides described in European patent EP-A-0 407 230, LSA 1 (Liver Stage Antigen) polypeptides described in International patent application WO 92/13884 and LSA-3 described in French patent FR 2 735 478.

The present invention relates to novel polynucleotide and polypeptide molecules specific to the pre-erythrocytic stages and to their use as an active principle for an anti-malaria vaccine or in methods for diagnosing the disease.

SUMMARY OF THE INVENTION

Applicant has identified a series of 120 genomic DNA fragments coding for proteins expressed in the pre-erythrocytic stages, i.e., the sporozoite stage and/or the liver stage. Initial characterization of this series of clones has resulted in identification of the LSA-1 antigen, then